Appln. No.: 10/798,626

Amendment Dated September 21, 2005 Reply to Office Action of June 22, 2005

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

- 1. (Currently Amended) A method for treating contaminated soil and water comprising the steps of:
- a) preparing a stable dispersion of zero-valent iron particles having a maximum size of  $10~\mu m$  in an aqueous solution containing a dispersant being one of block or graft copolymers containing both anchoring and stabilizing chains; and
- b) subjecting said dispersion to one of a grinding or milling operation to produce a solution containing said zero-valent iron particles having an average size less than 100 nanometers; and

 $b\underline{c}$ ) applying said zero valent iron dispersion to said contaminated soil and water.

- 2. (Cancelled)
- 3. (Currently Amended) A method according to claim 2-1 including the step of using one of sodium polymethacrylate or ammonium polymethacrylate as a dispersant to stabilize said colloidal suspension containing zero valent iron particles.
- 4. (Currently Amended) A composition for treating contaminants in soil or water consisting of:
- a stabilized colloidal suspension of zero valent iron particles stabilized by one of a block or graft copolymer containing both anchoring and stabilizing chains wherein said zero valent iron particles have an average size less than 100 nanometers.
  - 5. (Cancelled)
- 6. (Currently Amended) A composition according to claim  $\frac{5-4}{4}$  including less than 1 to 2% by weight of one of ammonium polymethacrylate and/or sodium polymethacrylate as a stabilizer for said suspension.
- 7. (Original) A composition according to claim 4 wherein said suspension includes up to 30% by wt iron particles.
- 8. (Currently Amended) A method for preparing a suspension of zero-valent iron particles comprising the steps of:

preparing a stabilized dispersant of iron particles having a size no larger than 10  $\mu m$  by introducing one of a block or graft copolymer containing both anchoring and stabilizing chains into said dispersant as a stabilizer having a size no larger than 10  $\mu m$ ; and

grinding or milling said stabilized dispersant for a time sufficient to reduce the size of the zero valent iron particles to a maximum size of 100 nm.

LUN-102US

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## 9. (Cancelled)

- 10. (Currently Amended) A method according to claim <u>9-8</u> including the step of introducing one of sodium polymethacrylate or ammonium polymethacrylate into said dispersant as said stabilizer.
- 11. (Original) A method according to claim 10 including the step of using from 1 to 2% by weight of said ammonium polymethacrylate or said sodium polymethacrylate to produce said stabilized dispersant.
- 12. (Original) A method according to claim 10 including the step of using up to 30% by weight iron particles.